
Goydera—A New Genus of Asclepiadaceae from Somalia

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ABSTRACT. A new genus of Asclepiadaceae, *Goydera*, from Somalia, is described. The new genus is related to the African genera *Blyttia* and *Diplostigma* and is characterized by colorless latex, a highly fused, adaxially densely pubescent corolla, and a bulge carrying the gynostegium.

During an ongoing revision of the subtribe *Cynanchinae* (Asclepiadeae, Asclepiadaceae), several unnamed specimens from Somalia were discovered which, on first sight, were thought to represent a new species of *Cynanchum* L. While the circumscription of *Cynanchum* is notoriously difficult, the main question, the inclusion of *Vincetoxicum* Wolf, has no bearing on the description of the present taxon, as its characters agree even less with *Vincetoxicum* than with *Cynanchum* s. str.

The corona, widely used in Asclepiadaceae systematics, provides the first hint that the new species would be ill-accommodated in *Cynanchum*. While both *Cynanchum* and the new taxon share the basic corona structure of highly fused staminal and interstaminal parts, in *Cynanchum* at least the staminal parts attain the height of the gynostegium. In the new taxon, however, the indistinguishable staminal and interstaminal corona parts form an annulus, which just reaches the lower entrance of the guide rails. The mismatch with *Cynanchum* is supported by a range of other characters. All species of *Cynanchum*, with exception of the aberrant and probably misplaced North American *C. laeve* (Michaux) Persoon, possess milky latex. Because latex characters seem to be highly conservative (Liede & Mahlberg, unpublished), this character strongly supports the exclusion of the new species from *Cynanchum*. The highly fused elongated-conical corolla, the long trichomes covering its adaxial surface, the minute size of the flowers, and the sharply geniculate caudicles constitute characters not encountered in *Cynanchum*. Colorless latex, tiny flowers, and long trichomes on the adaxial surface of the corolla, however, are encountered in the small East African/Arabian genera *Blyttia* Arnott and *Diplostigma* K. Schumann. However, these genera possess a different corona structure, which does not allow inclusion of the taxon into either genus. A new genus thus has to be created.

Goydera Liede, gen. nov. TYPE: *Goydera somaliense* Liede.

Blyttiae et *Diplostigmae* affine, sed corolla alte connata et intus dense pubescententi differt. Corona a gynostegio originans, ex partibus staminodialibus et interstaminodialibus constans.

Plants containing colorless latex. *Inflorescences* one per node, constituting a scorpioid cyme or an inflorescence type derived from it. *Corolla* fused for more than half of its height, adaxially densely covered with long, slender trichomes. *Corona* gynostegial, consisting of fused staminal and interstaminal parts, shorter than the gynostegium. *Gynostegium* elevated by a bulge. *Pollinia* pendulous.

The taxon is named after David J. Goyder, Kew, who directed my interest to this unusual plant.

Goydera somaliense sp. nov. TYPE: Somalia. Hiiraan Region: Bulo Burti District, 03°46'N, 44°57'E, 13 km NNE of Dharyio, ± 300 m, 29 Nov. 1986, *Kuchar 17188* (holotype, K). Figure 1.

Herba volubilis, foliis lineariformibus, corolla conica, corona brevi annulari.

Plants twining, 50–70 cm high, sparsely basitonically branched, sarmentose, runners corky. *Shoots* herbaceous, glabrous; internodes 4–7 cm long, 0.6–1 mm diam.; latex sparse, colorless. *Leaves* sessile, lacking colleters; leaf blades herbaceous, linear, 12–15 mm long, 0.5–0.7 mm wide, apically acute, adaxially glabrous, abaxially sparsely indumented with erect, 200–250- μ m-long trichomes; indumentum restricted to veins and margins. *Inflorescences* umbelliform, 10–15-flowered, 8–12 flowers open at the same time, pedunculate; peduncles 5–7 mm long, glabrous. *Floral bracts* 0.4–0.5 mm long, 0.2–0.3 mm wide at the base, ovate, with trichomes; pedicels 2–3 mm long, glabrous. *Buds* 2.5–3 mm long, 1.3–1.5 mm diam., conical, aestivation imbricate. *Calyx* basally fused, rotate, ciliate; sepals 1.7–1.8 mm long, 0.6–0.7 mm wide, triangular, apically acute. *Corolla* elongated-conical, fused for $\frac{7}{8}$ of its height, 3.5–4 mm high, 1–1.5 mm wide, rugose, glabrous, abaxially yellow to brown, adaxially densely covered with long tri-

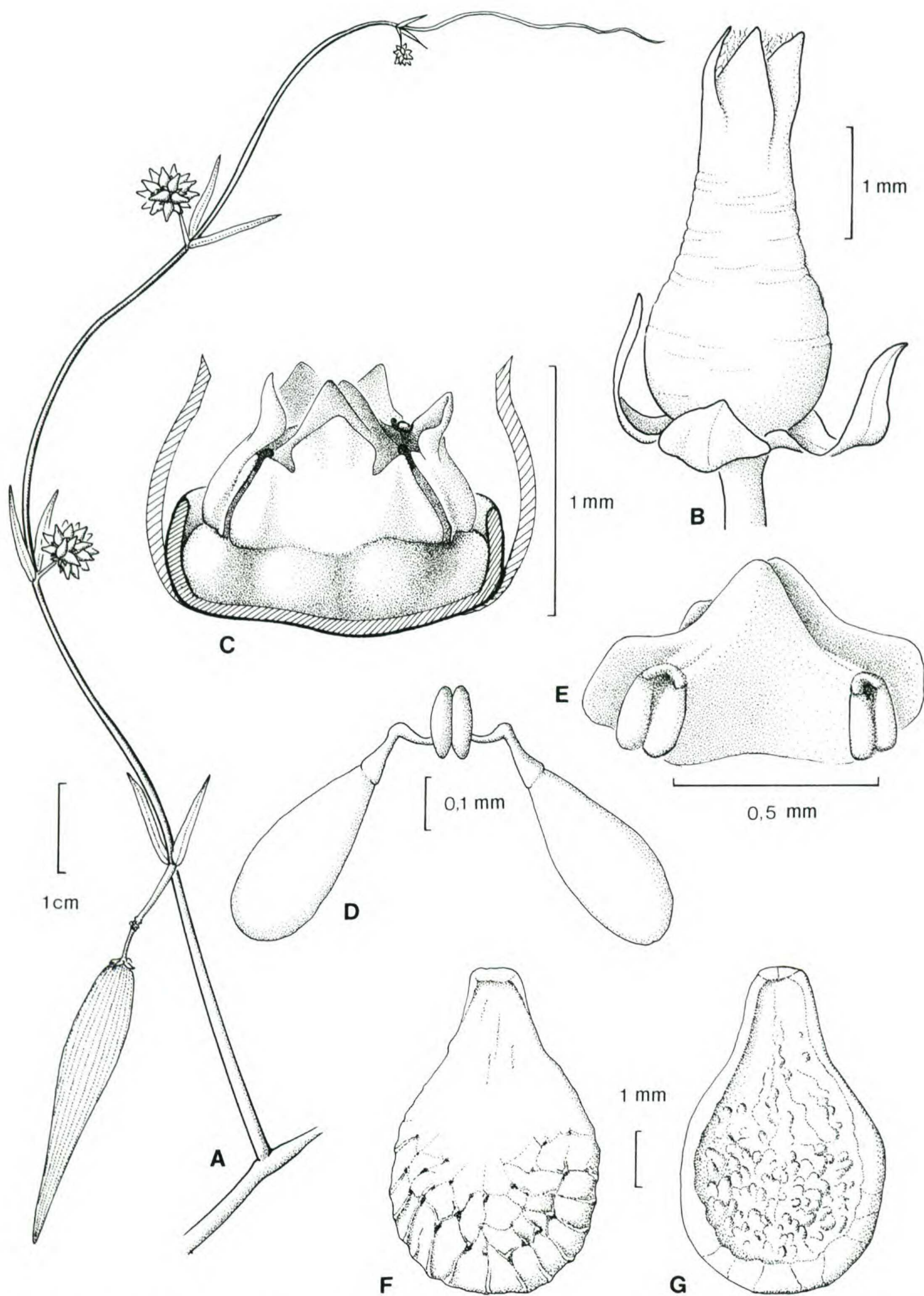


Figure 1. *Goydera somaliense* Liedt. —A. Habit, inflorescences, and fruit. —B. Flower. —C. Flower, corolla and corona removed showing gynostegium and the bulge elevating it. —D. Pollinarium. —E. Stylar head. —F. Seed, aleta side. —G. Seed, seta side (Kuchar 17188).

chomes; corolla lobes erect, ovate to lanceolate, apically acute. *Corona* cyathiform, 350–450 mm high, shorter than the gynostegium; staminal and interstaminal parts completely fused, upper corona margin straight. *Gynostegium* elevated by a bulge of 300–350 μm , 750–850 μm high without bulge, 1,200–1,300 μm diam. *Anthers* broader than high, trapezoidal, abaxially planar; anther wings 350–400 μm long, extending along the whole length of the anther, convergent, consisting of proximal and distal ridge, proximal ridge curved, space between distal and proximal ridge bristly. Anther wings of adjacent anthers parallel to each other, in the same plane as the anther. Connective appendages 300–350 μm long, 350–400 μm wide, deltate, broader than the stamen. *Pollinarium*: corpusculum 150 μm long; caudicles (sub-)basally inserted at the corpusculum, 180–200 μm long, cylindrical, convexly recurved, thickened at the insertion of the pollinium, geniculate; pollinia apically attached to the caudicles, 340–380 μm long, 160–180 μm wide, ovate in cross section, clavate. *Stylar head* 650–750 μm diam., 400–450 μm high, forming a nose at the upper end of the corpusculum; upper part 200–250 μm high, equaling the lower part in height, conical. *Follicles* always one per flower, pendulous, 40–45 mm long, 4–5 mm wide, obclavate, round

in cross section, apically strongly beaked, wingless; light brown, longitudinally grooved. *Seeds* 3.5–4 mm long, 2–2.2 mm wide, pyriform, medium brown, dorsally papillose with knottily arranged papillae, ventrally papillose with papillae arranged in longitudinal ridge; coma 10–12 mm long. *Chromosome number*: unknown.

Distribution. Somalia, 4°05'–2°40'N, 42°20'–45°30'E, on limestone, in *Acacia-Commiphora* bushland.

Flowering time. November–December, May.

Paratypes. SOMALIA. **Hiiraan Region**: 03°53'N, 44°50'E, El Dabbo 23 km E of Dhanabo, \pm 345 m, 24 May 1983, *Gillett & Hemming 24405* (K). **Bulo Burti District**: 04°02'N, 45°23'E, 4 km N of Bulo Burti, \pm 600 m, 24 Dec. 1972, *Bally & Melville 15308* (K, MO). **Hiiraan District**: 04°03'N, 45°45'E, escarpment above Yasoomman, 300 m, 28 May 1989, *Thulin & Abdi Dahir 6486*. (K).

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